REMARKS

Reconsideration and allowance of the claims are requested in view of the above amendments and the following remarks. Claims 1, 27, 53 and 60 have been amended. Support for the claim amendments may be found in the specification and claims as originally filed. For example, support for the claim amendments may be found in the specification at least at page 24, line 22 – page 25, line 7. No new matter has been added. Claims 18, 44, 59 and 66 were previously cancelled without prejudice or disclaimer.

Upon entry of this amendment, claims 1-17, 19-43, 45-58 and 60-65 will be pending in the present application, with claims 1, 27, 53 and 60 being independent.

1.   Rejections Under 35 U.S.C. §102

The Office Action rejects claims 1-4, 17, 19-20, 23-25, 27-30, 43, 45-46, 49-51, 53-55, 58, 60-62 and 65 under 35 U.S.C. §102(e) as being anticipated by Aggarwal et al. (U.S. Patent 6,922,700). Applicants respectfully traverse this rejection for at least the following reasons.

The Office Action on pages 16-17 asserts that Aggarwal et al. discloses merging partitioned structures in the pool of partitioned candidate structures (citing col. 6, line 36 – col. 7, line 10; col. 7, lines 9-29 and 30-64). However, even if for argument sake the above assertion regarding Aggarwal et al. is correct, which applicants do not concede, Aggarwal et al. still fails to disclose or suggest augmenting a pool of partitioned candidate structures by adding merged partitioned structures to the pool while also <u>merging the partitioning methods associated with the partitioned structures</u> in the pool. As discussed in the present specification:

> The inclusion of horizontal partitioning introduces challenges during merging. First, it is not sufficient to simply merge the objects (e.g., indexes) themselves, but the <u>associated partitioning methods must also be merged.</u> This is non-trivial because the method of merging may depend on the partitioning method and vice versa. (see page 24, line 22 – page 25, line 2;

emphasis added).

When merging two structures, the fact that structures being merged may be co-located must be considered. <u>Thus if the partitioning method is not retained in the merged structure, the benefit of partitioning the merged structure may be significantly diminished</u> (to the extent that the merged structure is no longer useful). (see page 25, lines 8-11; emphasis added).

As a result, Aggarwal et al. fails to disclose or suggest the elements of augmenting the pool of partitioned candidate structures by determining generalized partitioned structures that may be relevant over a set of queries in the workload and adding them to the pool of partitioned candidate structures, wherein determining generalized partitioned structures is performed by merging partitioned structures in the pool of partitioned candidate structures and <u>merging the horizontal partitioning methods associated with the partitioned structures in the pool</u>, as included in amended independent claims 1 and 27. Independent claims 53 and 60 have been similarly amended.

Therefore, since Aggarwal et al. fails to teach or even suggest every element of claims 1, 27, 53 and 60, these claims are allowable.

Claims 2-4, 17, 19-20 and 23-25 depend from claim 1. Claims 28-30, 43, 45-46 and 49-51 depend from claim 27. Claims 54-55 and 58 depend from claim 53. Claims 61-62 and 65 depend from claim 60. As discussed above, claims 1, 27, 53 and 60 are allowable. For at least this reason, and the features recited therein, claims 2-4, 17, 19-20, 23-25, 28-30, 43, 45-46, 49-51, 54-55, 58, 61-62 and 65 are also allowable.

Reconsideration and withdrawal of the rejection of claims 1-4, 17, 19-20, 23-25, 27-30, 43, 45-46, 49-51, 53-55, 58, 60-62 and 65 under 35 U.S.C. §102(e) are respectfully requested.

2.   **Rejections Under 35 U.S.C. §103**

A.   **Obviousness in view of Aggarwal et al. and Wang**

The Office Action rejects claims 5-6, 21-22, 31-32, 47-48, 56 and 63 under 35 U.S.C. § 103(a) as being unpatentable over Aggarwal et al. in view of Wang (U.S. Patent 5,758,345). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Aggarwal et al. fails to disclose or suggest the elements of augmenting the pool of partitioned candidate structures by determining generalized partitioned structures that may be relevant over a set of queries in the workload and adding them to the pool of partitioned candidate structures, wherein determining generalized partitioned structures is performed by merging partitioned structures in the pool of partitioned candidate structures and merging the horizontal partitioning methods associated with the partitioned structures in the pool, as included in independent claims 1 and 27. As discussed above, independent claims 53 and 60 include similar elements. Wang fails to cure this defect.

Wang discloses a method for use with a massively parallel processor system or a distributed computer system for providing a physical design layout database across several nodes of the system (see abstract). However, Wang fails to disclose or suggest the elements of augmenting the pool of partitioned candidate structures by determining generalized partitioned structures that may be relevant over a set of queries in the workload and adding them to the pool of partitioned candidate structures, wherein determining generalized partitioned structures is performed by merging partitioned structures in the pool of partitioned candidate structures and merging the horizontal partitioning methods associated with the partitioned structures in the pool, as included in independent claims 1 and 27. As discussed above, independent claims 53 and 60 have been amended to include similar elements.

Therefore, since Aggarwal et al. and Wang, alone or in combination, fail to teach or suggest every element of claims 1, 27, 53 and 60, these claims are allowable.

Claims 5-6 and 21-22 depend from claim 1. Claims 31-32 and 47-48 depend from claim 27. Claim 56 depends from claim 53. Claim 63 depends from claim 60. As discussed above, claims 1, 27, 53 and 60 are allowable. For at least this reason, and the features recited therein,

claims 5-6, 21-22, 31-32, 47-48, 56 and 63 are also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claims 5-6, 21-22, 31-32, 47-48, 56 and 63 under 35 U.S.C. §103(a) are respectfully requested.

B.   Obviousness in View of Aggarwal et al. and Pederson et al.

The Office Action rejects claims 7-16, 26, 33-42, 52, 57 and 64 under 35 U.S.C. § 103(a) as being unpatentable over Aggarwal et al. in view of Pederson et al. (U.S. Patent 5,864,842). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Aggarwal et al. fails to disclose or suggest the elements of augmenting the pool of partitioned candidate structures by determining generalized partitioned structures that may be relevant over a set of queries in the workload and adding them to the pool of partitioned candidate structures, wherein determining generalized partitioned structures is performed by merging partitioned structures in the pool of partitioned candidate structures and merging the horizontal partitioning methods associated with the partitioned structures in the pool, as included in independent claims 1 and 27. As discussed above, independent claims 53 and 60 include similar elements. Pederson et al. fails to cure this defect.

Pederson et al. discloses a method for optimizing SQL queries in a relational database management system using hash star join operations (see col. 1, lines 57-60). However, Pederson et al. fails to disclose or suggest the elements of augmenting the pool of partitioned candidate structures by determining generalized partitioned structures that may be relevant over a set of queries in the workload and adding them to the pool of partitioned candidate structures, wherein determining generalized partitioned structures is performed by merging partitioned structures in the pool of partitioned candidate structures and merging the horizontal partitioning methods associated with the partitioned structures in the pool, as included in independent claims 1 and 27. As discussed above, independent claims 53 and 60 have been amended to include similar elements.

Therefore, since Aggarwal et al. and Pederson et al., alone or in combination, fail to teach or suggest every element of claims 1, 27, 53 and 60, these claims are allowable.

Claims 7-16 and 26 depend from claim 1. Claims 33-42 and 52 depend from claim 27. Claim 57 depends from claim 53. Claim 64 depends from claim 60. As discussed above, claims 1, 27, 53 and 60 are allowable. For at least this reason, and the features recited therein, claims 7-16, 26, 33-42, 52, 57 and 64 are also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claims 7-16, 26, 33-42, 52, 57 and 64 under 35 U.S.C. §103(a) are respectfully requested.

3. Conclusion

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the present application is requested. Based on the foregoing, applicants respectfully request that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,

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September 24, 2007   /Kate Marochkina/
Date   Signature

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